

Uchechukwu Melody Okechukwu

Cell Phone: (832)-423-0381
Email: mel.ucheckukwu@gmail.com

4131 Aston LN,
Mansfield, TX 76063

Education

Prairie View A&M University, Prairie View, TX
Master of Science in Computer Science

Expected May 2025
GPA: 4.0

Michael Okpara University of Agriculture, Nigeria
Bachelor of Engineering in Computer Engineering

Graduated 2021
GPA: 3.4

Relevant Coursework: Commercial Programming Languages, Software Engineering, Database Management Systems, Data Structures & Algorithms, Stat learning for Big Data, AI/Machine Learning, Information Systems, Advanced Operating systems

Work and Leadership Experience

Prairie View A&M University

Prairie View, TX

Graduate Research Assistant-Machine Learning

August 2023-Present

- Enhanced programming skills for engineering students at Historically Black Colleges and Universities by implementing AI-driven personalized adaptive learning tools, utilizing semi-supervised and ensemble learning techniques in PyTorch
- Collaborate with other researchers to transfer novel research ideas/paper to Test Driven solutions using Python
- Improved model training time by 25% on a Linux-Based NVIDIA DGX Station by refactoring code using Object-Oriented Programming principles and provided comprehensive testing using PyTest/Unittest
- Crafted RAG chatbot application which improved interaction with research paper utilizing Hugging face transformer
- Developed an automated data pipeline using Earth data API to extract, transform, and load climate data into an Amazon S3 bucket, orchestrated with Apache Airflow

Chamsmobile Limited

Lagos, Nigeria

Software Engineer

July 2022-July 2023

- Architected an Employee Self-Service app on AWS, resulting in a 40% reduction in HR processing time and a 25% increase in user engagement. Utilized Amazon EC2, S3, and RDS for scalable, secure, and cost-effective infrastructure
- Achieved 70% success rate in reducing backlogs on loan requests by implementing a recommendation system using FastAPI and JavaScript that integrated with organizations' legacy system containerized the application using Docker
- Enhanced test automation for Kegow app using Selenium, JUnit, and Jenkins, increasing test coverage by 25%, reducing manual testing efforts by 30%, while identifying and resolving critical bugs to ensure seamless product release
- Implemented RESTful APIs with Spring Boot and MySQL for internal users to create, retrieve, and update Petroleum refining data with a dashboard web client
- Enhanced data retrieval and user experience by caching with Redis, reducing latency by 63% on average
- Guaranteed high availability for real-time data visualization using Kafka and integrated WebSocket with Spring

Technology Project

FreshFind – Ecommerce Store:

- Developed scalable ecommerce application with Django, and integrated Stripe for secure payments. Fashioned a responsive UI with React and Redux, implemented API testing with Pytest, and deployed using Docker and AWS EC2. Established a CI/CD pipeline with GitHub Actions

Fixit-PVAMU

- Developed a centralized issue reporting platform using Spring Boot, PostgreSQL, Shibboleth for secure login, REST APIs for efficient data exchange. Improved operational efficiency and user experience across the university by streamlining the process for reporting and tracking facilities and IT issues

CafeView-MOUAU

- Developed a web-app using Django, React, Tailwind CSS, and PostgreSQL, achieving a 30% reduction in food waste at MOUUAU cafeteria resulting in saving over \$100,000 monthly. Integrated a DialogFlow NLP chatbot to provide real-time meal information, enhancing student decision-making and increasing cafeteria foot traffic by 15%. Also, implemented an analytics dashboard to visualize consumption patterns, supporting data-driven menu planning.

Certifications || Associations || Tools || Skills

Certifications: Microsoft Azure (AZ-900) || AWS Certified Cloud Practitioner || Oracle Cloud Infrastructure Gen AI Pro.

Associations: National Society of Black Engineers || Association for Computing Machinery || IEEE

Programming language|| Frameworks: Python, Java, JavaScript, C++, React, Bootstrap4, Django, Flask, FastAPI,

PySpark, SQL, NoSQL, TensorFlow, PyTorch, Jenkins Scikit-learn, Git, Linux, Docker, Kubernetes, Azure, AWS.

Skills: Problem solving, Critical thinking, Effective communication, Software programming, Team collaboration, DevOps,

Software testing and debugging, Software project management, Test driven development, System design, Time management.